Claims (as amended on 28 February 2001)

1. A method for implementing narrowband and broadband services on a transmission link (SL) of a telecommunications network, having a frequency-dependent characteristic impedance, the method comprising the steps of

- transferring signals belonging to a narrowband service in a first frequency range below a given threshold frequency and signals belonging to a broadband service in a second frequency range above said threshold frequency in the transmission link,

- connecting a splitter element (PS1, PS2) to the transmission link, the splitter element comprising a passive low-pass filter block (72) connected between the transmission link and a first interface (I1) and a high-pass filter unit (HPF) connected between the transmission link and a second interface (I2), signals relating to narrowband service being separated to the first interface by means of the low-pass filter block and signals relating to broadband service being separated to the second interface by the high-pass filter unit, and discrete impedance converting means (71) for adapting the first interface to the characteristic impedance of the transmission link, whereby said impedance converting means conduct the adapting independently without external control,

characterized by

placing said impedance converting means entirely between the interface of the low-pass filter block (72) on the transmission link side and said first interface.

2. A method as claimed in claim 1, characterized by constructing a discrete converting block (71) from the converting means and fitting said block between the first interface and the low-pass filter block.

3. A method as claimed in claim 2, characterized by implementing the low-pass filter block as an LC network (72) having only inductances and capacitances, said network comprising at least one longitudinal inductance relative to the subscriber line and at least one transverse capacitance relative to the subscriber line.

4. A method as claimed in claim 2, characterized in that the low-pass filter block is implemented as an LC network (72) having inductances and capacitances, and that part of the impedance converting

means is implemented by adding at least one resistor element (RL1', RL1", RL2', RL2") to said network.

5. A splitter element in a telecommunications system for separating signals transferred in different frequency ranges, said splitter element comprising

- a line port (P) connected to a transmission link (SL) having a frequency-dependent characteristic impedance,

- a low-pass filter block (72) connected between the line port and a first interface (I1), said first interface being intended for signals transferred in a lower frequency range,

- a high-pass filter unit (HPF) connected between the line port and a second interface (I2), said second interface being intended for signals transferred in a higher frequency range, and

- discrete impedance converting means (71) for adapting the first interface to the characteristic impedance of the transmission link, whereby said impedance converting means conduct the adapting independently without external control,

characterized in that

said impedance converting means are fitted entirely between the interface of the low-pass filter block on the transmission link side and said first interface.

6. A splitter element as claimed in claim 5, characterized in that the impedance converting means comprise a discrete conversion block (71) fitted between the first interface and the low-pass filter block.

7. A splitter element as claimed in claim 6, characterized in that the low-pass filter block comprises a network (72) having only inductances and capacitances, comprising at least one longitudinal inductance relative to the subscriber line and at least one transverse capacitance relative to the subscriber line.

8. A splitter element as claimed in claim 6, characterized in that the low-pass filter block comprises a network (72) having only inductances and capacitances, comprising at least one longitudinal inductance relative to the subscriber line and at least one transverse capacitance relative to the subscriber line, and that the impedance converting means further comprise at least one resistor element (RL1', RL1", RL2', RL2") fitted to the network.